

RUWENZORI EXPEDITION REPORTS.

4. MOLLUSCA.

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[PLATE I.*]

THE collection of Mollusca now reported on, although small, contains several specimens of interest, besides the four species which appear to be new. The fine series of *Limicolaria saturata* and *L. smithi* show how variable those species are both in form and colour, and the variety of the large *Achatina schweinfurthi* presents a very unusual style of coloration.

As the Ruwenzori district had been to a certain extent explored by Dr. Stuhlmann † in 1894, it is rather surprising that the present collection, consisting of only fourteen species, should contain so large a proportion of novelties.

A few new species obtained by the Duke of the Abruzzi on Ruwenzori have been described by Carlo Pollonera ‡.

1. *VITRINA OLEOSA* Martens.

Vitrina oleosa Martens, Deutsch-Ost-Afrika, vol. iv. p. 40, pl. iii. fig. 4.

a-n. Mubuku Valley, E. Ruwenzori, 10,000–14,000 feet.

Several specimens from the above elevation apparently belong to this species, or to *Vitrina cagnii* Pollonera §. From *V. oleosa* they may differ in having the peristome of the same colour as the rest of the shell, and not black. *V. cagnii* is said to be “fusco-cornea,” whereas the present specimens are yellowish horn-colour.

2. *TROCHOZONITES LEPTALEUS*, sp. n. (Plate I. figs. 12, 13.)

Testa concave conica, ad peripheriam acute carinata, tenuis, anguste perforata, pallide cornea, supra haud nitida; spira elata, breviter concava; anfractus 8, lente accrescentes, superiores $2\frac{1}{2}$ globosi, læves, cæteri planiusculi, ad suturam carinati, plicis tenuibus oblique arcuatis numerosis ornati, ultimus infra carinam acutem nitens, planiusculus, lineis incrementi tenuissimis, striisque microscopicis

* For explanation of the Plate, see p. 50.

† For an account of Dr. Stuhlmann's collections, see Martens and Simroth in ‘Deutsch-Ost-Afrika,’ vol. iv. (1898).

‡ Boll. Mus. Zool. ed Anat. Torino, vol. xxi. no. 538 (1906).

§ *Tom. cit.* p. 1 (1906).

irregulariter concentricis sculptus; apertura obliqua, subquadrata, brevis; peristomium tenue, margine columellari ad insertionem breviter expanso et reflexo.

Alt. 8·5 mm., diam. 11.

a. Mubuku Valley, E. Ruwenzori, 10,000–14,000 feet.

Under a lens the plicæ look quite rib-like; they do not extend below upon the keel so as to affect the regularity of it.

T. mamboiensis Smith* is similar in form, but less strongly plicate upon the upper surface, and the concentric sculpture upon the base of the body-whorl is more distinct than in the present species. It is also darker in colour.

3. TRACHYCYSTIS? RUWENZORIENSIS, sp. n. (Plate I. figs. 9–11.)

Testa orbicularis, depressa, tenuis, anguste umbilicata, olivaceo-cornea, ad apicem albida, vix nitida, lineis incrementi arcuatis conspicuis subplicatis ornata; spira parum elata, ad apicem obtusa; anfractus 5, sutura subprofunda sejuncti, convexiusculi, regulariter accrescentes, superiores duo læves, ultimus haud descendens, infra plicis vel striis minus conspicuis; apertura oblique lunata; peristomium tenue, simplex, margine columellari ad insertionem dilatato et reflexo.

Diam. maj. 13 mm., min. 10½, alt. 6½.

a-d. Mubuku Valley, E. Ruwenzori, 10,000–14,000 feet.

In form this species is rather like *Helix bukobæ* Martens †, but is more narrowly umbilicated. The colour of the latter species, moreover, is described as chestnut-brown, with a light zone on the body-whorl.

The present species is so thin that the underside of the body-whorl is liable to wrinkle when dry. The lines of growth are well-marked, even finely plicate above.

4. ENA (CERASTUS) RETIRUGIS (Martens).

Buliminus retirugis Martens, Deutsch-Ost-Afrika, vol. iv. p. 60, pl. iii. fig. 25.

a. Ruwenzori (no particular locality given).

A single specimen agreeing in all respects with the description, excepting that the network or malleation is of the same colour as the rest of the shell and not pale yellow. It is rather smaller than the type, having a length of 24 mm. *E. lagariensis* Smith is probably only a variety of this species in which the malleation is almost obsolete, and *Buliminus (Petræus) aloysii sabaudiaë* Pollonera is the same, or a very closely allied form.

5. ACHATINA SCHWEINFURTHI, var. (Plate I. fig. 8.)

Achatina schweinfurthi Martens; Pilsbry, Manual Conch. vol. xvii. p. 61, pl. vi. fig. 15.

a. Ruwenzori (no special locality stated).

* Ann. Mag. Nat. Hist. 1890, vol. vi. p. 151, pl. v. fig. 3.

† Deutsch-Ost-Afrika, vol. iv. p. 58, pl. iii. fig. 23.

Only a single specimen is in the collection. It is, however, peculiar on account of the absence of the dark irregular brown markings upon the last two whorls; these are covered with a yellow periostracum, beneath which the shell is white. *A. tincta* Reeve, *A. weynsi* Dautzenberg, *A. buchneri* Martens, and the present species are very difficult to separate, all being characterized by a very similar style of coloration and sculpture.

6. *BURTOA NILOTICA* (Pfeiffer).

Bulimus niloticus Pfeiffer, Proc. Zool. Soc. 1861, p. 24.

a. Ruwenzori (no special locality given).

Only one young shell was obtained. For further references, see Pilsbry, Manual of Conchology, 2nd series, vol. xvi. p. 300; and for the anatomy, Reynell, Proc. Malac. Soc. vol. vii. p. 97, pl. xvii.

7. *LIMICOLARIA SATURATA* Smith. (Plate I. figs. 1-4.)

Limicolaria saturata Smith, Proc. Malac. Soc. vol. i. p. 324, fig. 1 on p. 323.

? *Limicolaria ventricosa* Smith, l. c. p. 324, fig. 2, abnormal.

a-a'. Ruwenzori (no special locality given).

A fine series of specimens of this species indicates that it is very variable both in colour and form. These differences can be shown only by means of coloured figures.

One set of specimens is of the same rich dark colouring as the type, whereas another set has quite light brown markings. One of the most constant features is the size of the two or three apical whorls: these are rather small, so that the top of the spire is slender in comparison with other species. I do not feel quite sure that *L. ventricosa* is an abnormal example; certain specimens in the present collection approach it in shape, but none of them has the top whorls quite so broad.

8. *LIMICOLARIA SMITHI* Preston. (Plate I. figs. 5-7.)

Limicolaria smithi Preston, Proc. Malac. Soc. vol. vii. pp. 89, 90, fig.

a-f. Ruwenzori (no special locality given).

Also recorded from the Uganda District (*Preston*); Bunjako, N. of Victoria Nyanza; between Entebbe and Fort Portal, Toro, Uganda; Kibiro, east shore of Lake Albert.

As pointed out by the author, this species is extremely variable in colour, and the differently coloured shells appear to occur together in the same locality.

Some specimens are white covered with a greyish-olive periostracum, and with or without a blackish umbilical zone. Others have a dark infrasutural interrupted band besides the basal zone. Some specimens, like the type, have the upper whorls blackish-purple, or inclining to purplish-rose, or again quite pale. The finest example, from Kibiro, east shore of the Albert Nyanza, is a very striking shell with broad,

almost black, oblique flames and short wavy lines of a reddish-brown colour at the upper part of these whorls. In another shell from the same locality these reddish lines extend further over the whorls, in the last of which they cover three-fourths of its extent. I am inclined to think that Martens* has figured this species as *L. colorata*, vars. *saturata* and *infrasusca*, and perhaps *fuscescens*. *L. mediomaculata* Martens † is also very closely allied.

9. HOMORUS FUSCOSTRIGATUS, sp. n. (Plate I. fig. 14.)

Testa subulata, sordide lutea, strigis obliquis numerosis saturate fuscis picta, ad apicem haud strigata, ad suturam linea lutescente cincta; anfractus 10, lente accrescentes, leviter convexiusculi, lineis tenuibus confertis incrementi striisque spiralibus decussati, ultimus ad peripheriam rotundatus, linea fusca indistincta cinctus; apertura inverse auriformis, cærulescens, longitudinis totius $\frac{1}{4}$ fere æquans; labrum tenue, nigrescens; columella tenuis, leviter arcuata, antice breviter truncata.

Longit. 32 mm., diam. $7\frac{1}{2}$; apertura $7\frac{1}{2}$ mm. longa, 4 lata.

a. Mubuku Valley, E. Ruwenzori, 7000 feet.

Subulina martensi of Dupuis and Putzeys appears to be closely related to the present species, but is much larger, with more convex whorls.

The lines of growth in *H. fuscostrigatus* are somewhat puckered at the suture, which is consequently more or less uneven; they are very fine and thread-like, and, being crossed by the transverse striæ, are cut up into elongate sections. The peripheral dark line is very indistinct and may be an individual peculiarity.

10. HOMORUS BICOLOR, sp. n. (Plate I. fig. 15.)

Testa mediocriter elongata, nigro-rufescens, ad apicem flavescens, nitens, lineis incrementi obliquis, striisque spiralibus tenuibus sculpta; spira ad apicem obtusa; anfractus $6\frac{1}{2}$, regulariter crescentes, valde convexi, superiores $2\frac{1}{2}$ flavescentes, ultimus perconvexus, striis spiralibus minus distinctis; apertura inverse auriformis, intus purpurascens, longitudinis totius $\frac{2}{3}$ adæquans; labrum extra incrassatum; columella in medio arcuata, antice oblique truncata.

Longit. 16 mm., diam. $6\frac{1}{2}$; apertura 6 mm. longa, $3\frac{1}{3}$ lata.

a. Mubuku Valley, E. Ruwenzori, 7000 feet.

This species is remarkable on account of the yellowish apex, which contrasts strikingly with the rest of the shell, and for the thickening of the labrum on the outside with a rounded rib, a feature which perhaps may prove to be of generic importance.

* Deutsch-Ost-Afrika, vol. iv. p. 105, pl. iv. figs. 2, 6, 8, 10, 12, 14.

† *Op. cit.* p. 107, pl. iv. figs. 3, 5, 7.

The surface of this shell is highly glossy, although exhibiting spiral striæ and lines of growth. The latter, under the lens, have a somewhat puckered appearance below the suture.

11. *HOMORUS RUNSSORINUS* (Martens).

Glessula runssorina Martens, Deutsch-Ost-Afrika, vol. iv. p. 114, pl. v. figs. 11, 12.

a-c. Mubuku Valley, E. Ruwenzori, 10,000 feet.

Three specimens, two of which are larger than the shells described by von Martens. Length 32 mm., diam. 11; aperture 12 mm. long, 6 broad.

The upper whorls exhibit more or less indistinct spiral striæ, and the whole surface under the microscope presents a minutely frosted appearance.

12. *CYCLOPHORUS (AFERULUS) ELATIOR* Martens.

Cyclophorus elatior Martens, Deutsch-Ost-Afrika, vol. iv. p. 8, pl. i. fig. 1, pl. ii. fig. 4.

a-c. Mubuku Valley, E. Ruwenzori, 5000-7000 feet.

This species is remarkable for the spiral brown lineation of the yellowish periostracum. When this is worn off the shell is dirty white beneath. Von Martens's specimens were collected by Dr. Stuhlmann near the south shore of Lake Edward.

13. *LIMNÆA NATALENSIS* Krauss.

Limnæus natalensis Krauss, Südafrik. Moll. p. 85, pl. v. fig. 15.

a, b. Ruwenzori (no special locality given).

This South African species appears to have a wide range northward, if the various shells which have been recorded under this name all belong to one and the same species. It is said to occur in Lakes Nyassa and Tanganyika.

14. *PLANORBIS BRIDOUXIANUS* Bourguignat.

Planorbis bridouxianus Bourg. Ann. Sci. Nat. 1890, vol. x. p. 20, pl. i. figs. 9-12.

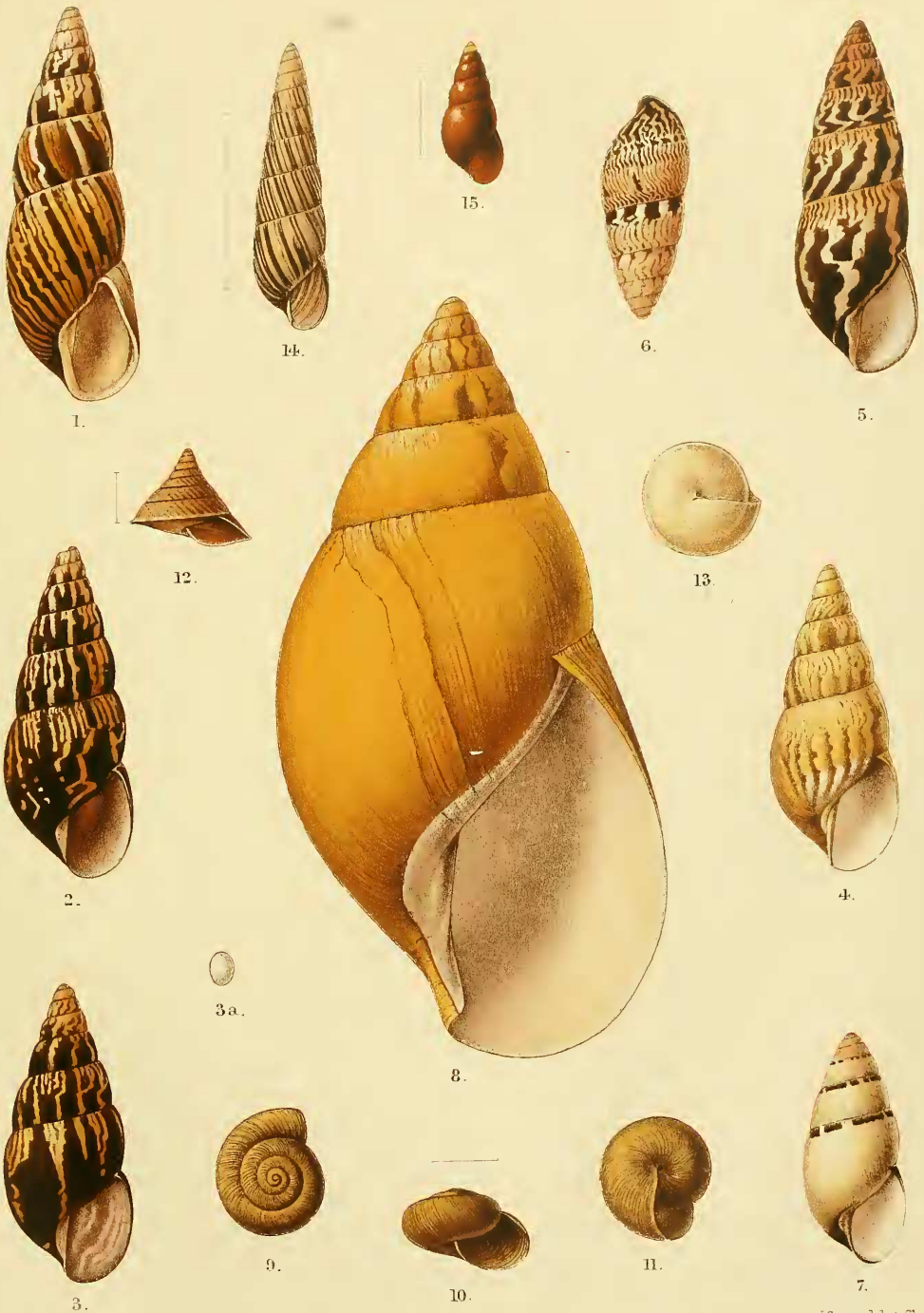
a, b. Ruwenzori (no special locality given).

Two specimens, which seem to agree with the description and figures of this Tanganyika species.

PLATE I.

PLATE I.

- Figs. 1-4. *Limicolaria saturata*, p. 45.
5-7. ,, *smithi*, p. 45.
8. *Achatina schweinfurthi*, var., p. 44.
9-11. *Trachycystis?* *ruwenzoriensis*, p. 44.
12-13. *Trochozonites leptaleus*, p. 43.
14. *Homorus fuscostrigatus*, p. 46.
15. ,, *bicolor*, p. 46.



J. Green, del. et. Chromo lith.